

AMENDMENTS TO THE CLAIMS

1. (Previously presented) A method of preparing a lower extremity of a femur and implanting a femoral slideway thereon, the method comprising:

providing a femoral slideway having at least one peg adapted for insertion into a hole in the femur;

locating a point on a lower extremity of a femur, said point being located at a pre-determined distance from a plane tangent to dorsalmost points of lateral and medial condyles of the femur, the pre-determined distance defined by a template having a permanently specified distance between a bore on a support part and a contact surface on a flank of the template, the support part and flank defined as a single piece, the contact surface configured to engage at least one of the dorsalmost points of the lateral and medial condyles of the femur;

drilling a hole at said point; and

selecting a femoral slideway having a dimension defined by a perpendicular distance between a longitudinal axis of a peg extending from the slideway and a plane tangent to a dorsal sliding surface furthest away from the peg;

wherein said pre-determined distance is larger than said dimension.

2. (Original) The method of Claim 1, further comprising resecting bone material from the femur and fitting the slideway onto the femur by inserting the peg into the hole.

3. (Original) The method of Claim 1, wherein said pre-determined distance is about 5% to about 15% larger than said dimension.

4. (Original) The method of Claim 3, wherein said pre-determined distance is about 10% larger than said dimension.

5. (Original) The method of Claim 1, wherein said locating is performed before said drilling.

6. (Original) The method of Claim 1, wherein said selecting a femoral slideway further comprises selecting a slideway with a dimension between a dorsal sliding surface and a ventral sliding surface which is a previously-determined percent of a distance between a dorsalmost condylar surface and a ventral-most condylar surface of the femur before said resecting.

7. (Original) The method of Claim 6, wherein said percent is about 2 to 5%.

8. (Original) The method of Claim 1, wherein selecting further comprises selecting a femoral slideway from a group of slideways, wherein all of the slideways in said group have substantially equal peg-to-sliding-surface dimensions as defined by a perpendicular distance between a longitudinal axis of a peg extending from the slideway and a plane tangent to a dorsal sliding surface furthest away from the peg; and wherein each slideway in said group has a different dorsal condyle-to-ventral condyle distance.

9. (Previously presented) A method of preparing a lower extremity of a femur for implantation of a femoral slideway, said method comprising:

determining a location for a hole to be drilled in a lower surface of a femur bone by indicating a point at a previously-determined distance from a dorsal-most point of a condyle of said femur;

wherein said previously-determined distance is 5 to 15% larger than a distance between a peg and a dorsal sliding surface of the femoral slideway to be implanted on said femur bone;

drilling the hole in a lower surface of a femur bone at said point;

resecting bone material from said femur, wherein said resecting includes removing more bone material from a dorsal side of the femur than will be replaced by the slideway to allow for a reduction of the distance between the peg and a center of the turning radius of the dorsal portion of the slideway compared to the unresected femur to reduce a load on ligaments attached to the femur; and

implanting the slideway on the femur by inserting the peg into the hole.

10. (Original) The method of Claim 9, wherein said previously-determined distance is about 10% larger than a distance between a peg and a dorsal sliding surface of the femoral slideway to be implanted on said femur bone.

11. (Original) The method of Claim 10, wherein the distance between the peg and the dorsal sliding surface of the femoral slideway is between about 24 mm and about 34 mm.

12. (Previously presented) The method of Claim 11, wherein the distance between a peg and a dorsal sliding surface of the femoral slideway is about 29 mm.

13. (Previously presented) The method of Claim 10, wherein said previously-determined distance is between 26.4 mm and 37.4 mm.

14. (Original) The method of Claim 13, wherein the previously-determined distance is about 32 mm.

15. (Previously presented) The method of Claim 9, wherein said previously-determined distance is between 30.45 mm and 33.35 mm.

16. (Previously presented) A method of implanting a femoral slideway on a femur, said method comprising:

providing a slideway comprising two convexly curved condyle shells rigidly connected to one another anteriorly by a patellar shield, wherein outer surfaces of the condyle shells define dorsal sliding surfaces of the femoral slideway, wherein the femoral slideway has on an inner surface at least one peg, wherein between a long axis of the peg or pegs and a point on a dorsal sliding surface furthest away therefrom a sliding-surface-to-peg distance is defined, and wherein an overall extent of the femoral slideway in an anterior-posterior direction is smaller than a corresponding original overall extent of the condyles of a femur to which the femoral slideway is fitted;

resecting bone material from a femur, wherein said resecting includes removing more bone material from a dorsal side of the femur than is replaced by the slideway;

providing at least one hole in said femur to receive said at least one peg of said slideway and to secure and locate said slideway on said femur, the position of said at least one hole being a pre-determined distance from a plane tangent to dorsalmost points of lateral and medial condyles of the femur, the pre-determined distance defined by a femur-size template having a permanently specified distance between a bore on a support part and a contact surface on a flank of the template, the support part and the flank defined as a single piece, the contact surface configured to engage at least one of the dorsalmost points of the lateral and medial condyles of the femur; and

fitting said slideway onto said femur.

17. (Original) The method of Claim 16, wherein said resecting includes removing about 10% more bone material from the dorsal side of the femur than is replaced by the slideway, as measured linearly between said holes and a dorsalmost surface of said femur.

18. (Previously presented) The method of Claim 16, further comprising positioning the femur-size template on said femur to determine the position of said at least one hole in the femur.

19. (Original) The method of Claim 18, wherein said femur-size template comprises a dorsal condyle-engaging surface and at least one bore separated by a pre-determined distance.

20. (Original) The method of Claim 19, wherein said pre-determined distance is about 5 to 15% larger than a perpendicular distance between said at least one peg and said dorsal sliding surfaces.

21. (Original) The method of Claim 20, wherein said pre-determined distance is about 10% larger than a perpendicular distance between said at least one peg and said dorsal sliding surfaces.

22. (Previously presented) The method of Claim 1, wherein the bore and the contact surface are defined on a unitary part of the template.

23. (Previously presented) The method of Claim 26, wherein the previously-determined distance is 5 to 15% larger than the distance between the peg and the dorsal sliding surface of the femoral slideway to be implanted on the femur bone.

24. (**Canceled**).

25. (**Canceled**).

26. (Previously presented) A method of preparing a lower extremity of a femur and implanting a femoral slideway thereon, the method comprising:

providing a femoral slideway having at least one peg adapted for insertion into a hole in the femur;

locating a point on a lower extremity of a femur, said point being located at a pre-determined distance from a plane tangent to dorsalmost points of lateral and medial condyles of the femur, the pre-determined distance defined by a template having a permanently specified distance between a bore on a support part and a contact surface on a flank of the template, the support part and flank permanently connected to each other, the contact surface configured to engage at least one of the dorsalmost points of the lateral and medial condyles of the femur;

drilling a hole at said point; and

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selecting a femoral slideway having a dimension defined by a perpendicular distance between a longitudinal axis of a peg extending from the slideway and a plane tangent to a dorsal sliding surface furthest away from the peg;

wherein said pre-determined distance is larger than said dimension.

27. **(New)** The method of Claim 9, wherein resecting bone material from the dorsal side of the femur includes resecting an equal amount of bone from the medial and lateral posterior condyles.

28. **(New)** The method of Claim 16, wherein resecting bone material from the dorsal side of the femur includes resecting an equal amount of bone from the medial and lateral posterior condyles.